#### **REMARKS**

Claims 1-20 are pending. Claims 1-3, 6-9, 11-17, 19, and 20 are canceled, without prejudice. Claims 4, 5, 10, and 18 are amended. New Claims 21 and 22 are added. Support for new Claim 21 and 22 can be found, e.g., in originally filed Claims 1 and 3. The Specification is amended to provide a more descriptive title, provide appropriate priority claims to parent application, properly identify trademarked names, and correct the abstract of the disclosure. Applicants believe no new matter is added by the foregoing amendments.

## I. Objections to the Specification

The Examiner requested that the first paragraph of the specification contain specific reference to prior applications. Applicants have amended the specification to identify priority applications.

The Examiner found the title to not be descriptive of the present invention.

Applicants have amended the title above. The Examiner will note that the word "novel" is no longer in the amended title.

The Examiner objected to the abstract on the basis that the first sentence was incomplete. Applicants have amended the abstract accordingly to contain a complete sentence.

The Examiner objected to the specification for use of trademarks without proper capitalization. Applicants have amended the specification to capitalize trademarks and provide generic terminology where appropriate. Applicants have also corrected "BALB/c" as the proper designation of this mouse strain.

In view of the foregoing amendments, Applicants respectfully request that the above objections be withdrawn.

#### II. Objections to Claim 7

The Examiner objected to Claim 7 for the recitation of "is said agonist". Claim 7 is canceled and this objection is therefore moot, and may be properly withdrawn.

# III. Rejection of Claims 1, 4, 5, 7-10, and 18 under 35 U.S.C. 112, Second Paragraph

The Examiner rejected Claims 1, 4, 5, 7-10, and 18 under 35 U.S.C. 112, second paragraph. Claims 1 are canceled 7-9, and the rejection is therefore moot as to these claims. Applicants believe that new Claims 21 and 22 are free from this rejection.

The basis for the rejection of Claims 1, 4, 5, and 16 is the recitation of "modulating". New Claims 21 and 22 do not recite "modulation", but do recite "inhibiting", as recommended by the Examiner. The Examiner further found the phrase "said administering" in Claims 7-10 and 18 as indefinite for lack of antecedent basis. Applicants have amended Claims 10 and 18 to recite "contacting". New Claims 21 and 22 also recite "contacting".

In view of the foregoing, Applicants submit that the rejection of Claims 1, 4, 5, 7-10, and 18 is overcome. Withdrawal of this rejection is respectfully requested.

# IV. Rejection of Claims 1, 4-7, 9, 10, and 16-18 under 35 U.S.C. 112, First Paragraph

The Examiner rejected Claims 1, 4-7, 9, 10, and 16-18 under 35 U.S.C. 112, first paragraph, on the basis that, while the specification is enabling for mammalian OX2 protein, it does not enable all OX2 agonists. Claims 1, 6, 7, 9, 16, and 17 are canceled and the rejection is moot as to these claims. New Claims 21 and 22, and amended dependent claims 4, 5, 10, and 18 recite "mammalian OX2 protein".

In view of the above amendments, the rejection of Claims 1, 4-7, 9, 10, and 16-18 is overcome. Withdrawal of this rejection is respectfully requested.

# V. Rejection of Claims 1, 4-7, 9, 10, and 16-18 under 35 U.S.C. 112, First Paragraph

The Examiner further rejected Claims 1, 4-7, 9, 10, and 16-18 under 35 U.S.C. 112, first paragraph for lack of written description for the recitation of "OX2 agonists". Claims 1, 6, 7, 9, 16, and 17 are canceled and the rejection is therefore moot as to these claims. New Claims 21 and 22, and amended dependent Claims 4, 5, 10, and 18 no longer recite "OX2 agonists". As such, Applicants submit that this rejection is overcome and may be properly withdrawn.

Atty, Dkt. DX0936KB Page 10 of 12

05/02/2005 14:33 FAX 650 496 1200

## VI Rejection of Claims 1, 4-9, 16, and 17 under 35 U.S.C. 102(b)

The Examiner rejected Claims 1, 4-9, 16, and 17 under 35 U.S.C. 102(b) as being anticipated by Borriello, et al. (WO 97/21450). Claims 1, 6-9, 16, and 17 are canceled and the rejection is therefore moot as to these claims. Borriello et al. teach and claim a method of modulating a T cell response by administration of OX2 protein. New Claims 21 and 22, as well as dependent Claims 4, 5, 10, and 18 encompass the use of mammalian OX2 protein to inhibit the activity of microglial cells to treat neurodegeneration. Borriello et al. does not teach or claim the use of OX2 protein to inhibit microglial cell activity to treat neurodegeneration. Therefore, the cited reference fails to anticipate the present claims.

In view of the foregoing, Applicants submit that the rejection of Claims 1, 4-9, 16, and 17 under 102(b) is overcome. Withdrawal of this rejection is respectfully requested.

## VII. Rejection of Claims 1, 4-10, and 16-18 under 35 U,S.C. 102(e)

The Examiner rejected Claims 1, 4-10, and 16-18 under 35 U.S.C. 102(e) as being anticipated by Gorczynski, US Patent 6,338,851. Claims 1, 6-9, 16, and 17 have been canceled and the rejection is therefore moot as to these claims. The Examiner asserts that Gorczynski teaches the administration of OX2 protein to an animal and inherently teaches contacting OX2 to any cell type. Gorczynski describes experiments in which OX2 expressing dendritic cells (DCs) were tolerated in allograft transplantation (see Example 2). Further, the cited reference teaches that OX2 may be used to prevent fetal loss based upon OX2 expression in the placenta of non-aborting strains of mated mice (see Example 7). Gorczynski does not teach inhibiting the activity of microglial cells to treat neurodegeneration, and thus does not enable one skilled in the art to recognize that OX2 can mediate microglial activity in neural tissues. Therefore, Gorczynski is not an enabling disclosure and fails to anticipate new Claims 21 and 22, as well as dependent Claims 4, 5, 10, and 18.

In view of the foregoing amendments, Applicants submit that the rejection under 35 U.S.C. 102(e) is overcome and may be properly withdrawn.

Atty. Dkl. DX0936KB Page 11 of 12

### VIII. Obviousness-type Double Patenting Rejection

The Examiner provisionally rejected Claims 1, 4-10, and 16-18 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending USSN 10/741,430 (the '430 application). Claims 1, 6-9, 16, and 17 are canceled and the rejection is therefore moot as to this claim. The '430 application does not claim the use of OX2 protein to inhibit microglial cells in order to treat neurodegeneration, thus the present invention is patentably distinct from the '430 application. Applicants submit that new Claims 21 and 22, and dependent claims 4, 5, 10, and 18 are free from this rejection, and this rejection may be properly withdrawn.

#### Conclusion

Applicants' current response is believed to be a complete reply to all the outstanding issues of the latest Office Action. Further, the present response is a bona fide effort to place the application in condition for allowance or in better form for appeal. Accordingly, Applicants respectfully request reconsideration and passage of the amended claims to allowance at the earliest possible convenience.

Applicants believe that no additional fees are due with this communication. Should this not be the case, the Commissioner is hereby authorized to debit any charges or refund any overpayments to DNAX Deposit Account No. 04-1239.

If the Examiner believes that a telephonic conference would aid the prosecution of this case in any way, please call the undersigned.

Respectfully submitted,

Date: 02- May - 2005

Sheela Mohan-Peterson Registration No.: 41,201 Attorney for Applicants

Customer No. 028008 DNAX Research, Inc. 901 California Avenue Palo Alto, CA 94304-1104 Tel. (650) 498-6400

Tel. (Direct): (650) 496-1244

Fax: (650) 496-1200